Day button
Hour button
Minute button
Program button
Return button
Mode button
Up/Down buttons
Reset opening

Time and day
Appears if the thermostat is configured for a fan-forced heater
Appears when the setpoint is displayed
Heating power indicator
Period no. in Automatic mode
Flashes when the clock has been reset
Temperature
Appears during a power failure
Setting no. in Economy mode
Automatic mode
Manual mode
Economy mode

❶ **Description**

The TH104PLUS thermostat can be used to control an electric heating system such as a baseboard heater, a radiant floor, a radiant ceiling, a convector or a fan-forced heater.

The thermostat cannot be used with the following:

- a resistive load under 2 A
- a resistive load over 14.6 A
- systems driven by a contactor or a relay (inductive load)
- central heating systems

SUPPLIED PARTS

- One (1) thermostat
- Two (2) 6-32 mounting screws
- Two (2) solderless connectors

❷ **Installation**

TURN OFF POWER TO THE HEATING SYSTEM AT THE MAIN POWER PANEL TO AVOID ELECTRICAL SHOCK.

▸ All cables and connections must comply with local electrical codes.

▸ This thermostat has tinned copper wires for line and load connections. Special CO/ALR solderless connectors must be used if these wires will be connected to aluminium conductors.

▸ Install the thermostat onto an electrical box.

▸ Install the thermostat about 5 feet high, on an inside wall facing the heater.

▸ Avoid locations where there are air drafts (such as the top of a staircase or an air outlet), dead air spots (such as behind a door), or direct sunlight.

▸ Do not install the thermostat on a wall that conceals chimney or stove pipes.

▸ The thermostat wires are not polarized; either wire can be connected to the load or to the power supply.

1) Connect the thermostat

Connect the thermostat wires to the power and to the load using solderless connectors for copper wires.

2-wire installation
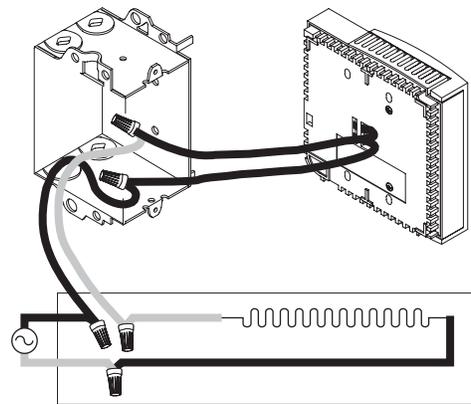
4-wire installation
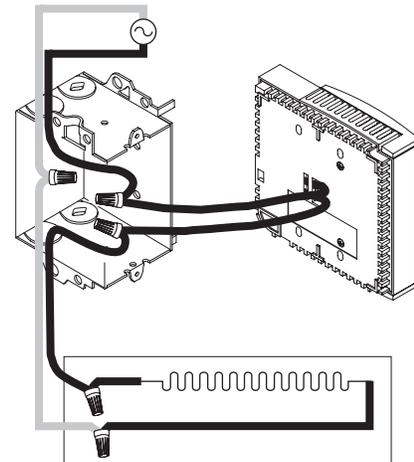
2) Mount the thermostat

Push the excess wires back inside the electrical box.

Secure the thermostat to the electrical box using the provided screws.

Insert the screws through either the right or left pair of mounting holes on the thermostat.
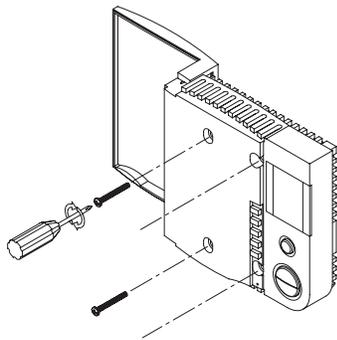
3) Complete the installation

NOTE: *If there is a protective film or sticker on the thermostat's screen, peel it off.*

Apply power to the heating system. Verify the installation by checking that the heater can be turned On and Off by raising and lowering the setpoint using the **Up** and **Down** buttons.

WARNING: *Keep the thermostat's air vents clean and free from obstructions.*

❸ Temperature Display and Setting

The thermostat normally displays the room (measured) temperature.

- To view the set temperature (setpoint), press the **Up** or **Down** button once.
- To change the setpoint, press the **Up** or **Down** button until the desired setpoint is displayed.
- The screen is backlit for 10 seconds when any button is pressed.

❹ Configuration

The factory settings are inside the shaded cells of the following table.

Temperature display	°C	°F
Time display	24 h	12 h
Temperature control	Proportional (15-second cycles)	Conventional (± 0.5°C deadband)

WARNING: *The clock loses its setting whenever you change the thermostat's configuration.*

Temperature display

To change the temperature display between °C and °F:

❶ Open the thermostat's door.

❷ Press and hold the **Day** button.

❸ Insert a pointed object (e.g., paperclip) in the reset opening. Remove it when the thermostat's screen becomes blank.

❹ Wait one second and release the **Day** button.

Time display

To switch between the 12-hour format and the 24-hour format:

❶ Open the thermostat's door.

❷ Press and hold the **Hour** button.

❸ Insert a pointed object (e.g., paperclip) in the reset opening. Remove it when the thermostat's screen becomes blank.

❹ Wait one second and release the **Hour** button.

Control type

▸ Use proportional control (default setting) in most cases as it provides better temperature control.

▸ Use conventional control if you have a fan-forced heater.

Fan is displayed when conventional control is selected. To switch between the two types of control:

❶ Open the thermostat's door.

❷ Press and hold the **Min** button.

❸ Insert a pointed object (e.g., paperclip) in the reset opening. Remove it when the thermostat's screen becomes blank.

❹ Wait one second and release the **Min** button.

❺ Clock and Day Setting

The clock must be set when **Time** flashes on the screen.

❶ Open the thermostat's door.

❷ Press the **Day** button to set the day.

❸ Use the **Hour** and **Min** buttons to set the clock.

❹ Press the ↵ button to exit.

❻ Modes of Operation

The thermostat has three modes of operation:

Automatic mode

To use the Automatic mode, press the Mode button until **Auto** is selected (outlined) on the screen. The current period number will appear.

In this mode, the thermostat automatically adjust its temperature setpoint according to the period of the day (wake up, leave for work, return home and sleep).

You can program up to 4 periods in a day. You can set 2 different programs: one for the weekdays (Monday to Friday) and another one for the weekend (Saturday and Sunday).

The thermostat is preprogrammed with the following schedule:

Period		Monday to Friday		Saturday & Sunday	
		Start Time	Temperature	Start Time	Temperature
1	Wake	6:00	21°C (70°F)	6:00	21°C (70°F)
2	Leave	8:00	16°C (62°F)	--	--
3	Return	18:00	21°C (70°F)	--	--
4	Sleep	22:00	16°C (62°F)	22:00	16°C (62°F)

To temporarily override the current setpoint, set the desired temperature using the **Up** or **Down** button. The new setpoint will be used until the beginning of the next period.

To modify the schedule:

❶ Press the Mode button until **Auto** is selected.

❷ Press **Pgm**.

Each time you press the **Pgm** button, the thermostat displays one of the periods of the schedule in the following order (from left to right):

Weekdays				Weekend			
MO TU WE TH FR				SA SU			
1	2	3	4	1	2	3	4

❸ Set the start time for the displayed period using the **Hour** and **Min** buttons.

NOTE: To deactivate the period, press the Mode button. Instead of displaying the start time of the period, the thermostat will display --:--. During operation, the thermostat will skip over that period.

❹ Set the temperature for the period using the **Up** or **Down** button.

❺ Repeat steps 2 to 4 for remaining periods.

❻ Press the ↵ button to return the thermostat to normal operation.

Manual mode

To use this mode, press the Mode button until **Man** is selected (outlined) on the screen. Set the desired temperature using the **Up** or **Down** button.

In this mode, any modification to the temperature setpoint must be done manually.

Economy mode

To use the economy mode, press the Mode button until **Econo** is selected (outlined) on the screen. This mode is ideal for weekend residences as it can be used as follows: The temperature is kept at an economy level during most of your absence and is raised to a comfortable level by your usual arrival time. If you do not show up, the temperature returns to the economy level until next weekend.

The economy mode has two periods which should be set as follows:

Period	Temperature Setting	Start Time Setting
1	Set to a comfortable level.	Set the day and time that you want the temperature to start rising so that a comfortable level is attained by the time you arrive.
2	Set to an economy level.	Set the day and time that you want the temperature to start dropping to an economy level if you do not show up.

The economy mode should be used as follows:

▸ Place the thermostat in economy mode during your absence.

▸ When you arrive, place the thermostat in automatic mode or in manual mode before the temperature drops back to the economy level.

▸ When you leave, switch the thermostat back to economy mode.

To program the two periods of the economy mode:

❶ Press the Mode button until **Econo** is selected.

❷ Press the **Pgm** button. The first period is displayed.

❸ Set the start day for the displayed period using the **Day** button.

❹ Set the start time using the **Hour** and **Min** buttons.

❺ Set the temperature for the period using the **Up** or **Down** button.

❻ Press the **Pgm** button to select the next program (2).

❼ Repeat steps 2 to 4 to set the day, time and temperature.

❽ Press the ↵ button to return the thermostat to normal operation.

❼ Thermostat Reset

***WARNING**: When the thermostat is reset, all parameters (clock, configuration and schedules) return to their default settings.*

❶ Open the thermostat's door.

❷ Press and hold the **Pgm** button.

❸ Insert a pointed object (e.g., paperclip) in the reset opening. Remove it when the thermostat's screen becomes blank.

❹ Wait one second and release the **Pgm** button.

❽ Power Outage

During a power outage, the thermostat display remains lit for approximately the next 15 minutes during which the **LP (**low power) indicator appears. The settings are stored in memory. However, if the power failure exceeds 5 hours, only the thermostat's clock must be re-adjusted. When power returns, the thermostat returns to the mode of operation preceding the power outage.

⑨ Troubleshooting

PROBLEM	SOLUTIONS
Thermostat's housing is hot.	This is normal. When the thermostat is running at full capacity, its housing can reach 40 °C (104 °F).
Wrong temperature is displayed.	Correct if any the following conditions applies: • The thermostat is exposed to an air draft. • The sticker on the thermostat's screen has not been removed. • The thermostat is located near or above a heat source such as a light dimmer.
Wrong time is displayed.	The thermostat was without power for more than 5 hours.
Temperature does not change according to the programmed schedule.	• Ensure the thermostat is in Automatic mode. • Check the clock and the schedule. If the thermostat is configured for 12-hour format, ensure that **PM** appears on the screen when afternoon times are displayed.
LP reappears on the screen and disappears after a few minutes.	The thermal protection device on the heater has temporarily opened. This can happen if the heater is obstructed by furniture or curtain and has overheated, or if the heater's thermal protection device is too sensitive.
Display looks faded when heating is activated.	The load of the heating system is probably less than the required minimum. This thermostat cannot be used for loads below that rating.

⑩ Specifications

Supply: 240 VAC, 60 Hz

Power consumption (off): 860 mW

Minimum load: 500 W / 2 A (resistive only)

Maximum load: 3500 W / 14.6 A (resistive only)

Display range: 0°C to 70°C (32°F to 99°F)

Setpoint range: 5°C to 27°C (40°F to 80°F)

Resolution: 1°C (1°F)

Storage temperature: -20°C to 50°C (-4°F to 120°F)

Dimensions: 120 x 115 x 26 mm (4.8 x 4.5 x 1 inches)

Approval: CSA / UL

☑ Warranty

Aube warrants this product, excluding battery, to be free from defects in the workmanship or materials, under normal use and service, for a period of three (3) years from the date of purchase by the consumer. If at any time during the warranty period the product is determined to be defective or malfunctions, Aube shall repair or replace it (at Aube's option).

If the product is defective,

(i) return it, with a bill of sale or other dated proof of purchase, to the place from which you purchased it, or

(ii) contact Aube. Aube will make the determination whether the product should be returned, or whether a replacement product can be sent to you.

This warranty does not cover removal or reinstallation costs. This warranty shall not apply if it is shown by Aube that the defect or malfunction was caused by damage which occurred while the product was in the possession of a consumer.

Aube's sole responsibility shall be to repair or replace the product within the terms stated above. AUBE SHALL NOT BE LIABLE FOR ANY LOSS OR DAMAGE OF ANY KIND, INCLUDING ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES RESULTING, DIRECTLY OR INDIRECTLY, FROM ANY BREACH OF ANY WARRANTY, EXPRESS OR IMPLIED, OR ANY OTHER FAILURE OF THIS PRODUCT. Some provinces and states do not allow the exclusion or limitation of incidental or consequential damages, so this limitation may not apply to you.

THIS WARRANTY IS THE ONLY EXPRESS WARRANTY AUBE MAKES ON THIS PRODUCT. THE DURATION OF ANY IMPLIED WARRANTIES, INCLUDING THE WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, IS HEREBY LIMITED TO THE THREE-YEAR DURATION OF THIS WARRANTY. Some provinces and states do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply to you.

This warranty gives you specific legal rights, and you may have other rights which vary by province, state or region.

☎ Customer Assistance

If you have any questions about the product installation or operation, contact us at the address shown below:

705 Montrichard
Saint-Jean-sur-Richelieu, Quebec
J2X 5K8
Canada
Tel: (450) 358-4600
Toll-free: 1-800-831-AUBE
Fax: (450) 358-4650
Email: aube.service@honeywell.com

For more information on our products, visit us at:
www.aubetech.com

As an ENERGY STAR® partner, Aube Technologies has determined that this product meets the ENERGY STAR guidelines for energy efficiency.